

CLAIMS

What is claimed is:

1. A reconstruction plate for reconstructing a fractured load-bearing anatomical structure, comprising:

an attachment member including at least one area defining an aperture formed therein; and

a support member extending angularly from the attachment member;

wherein the support member is operable to provide support to a posterior aspect of the reconstructed anatomical structure during loading of the reconstructed anatomical structure.

2. The invention according to claim 1, wherein the anatomical structure is an acetabulum.

3. The invention according to claim 1, wherein the anatomical structure is an acetabular dome.

4. The invention according to claim 1, wherein the attachment member includes a plurality of areas defining apertures formed therein.

5. The invention according to claim 1, wherein the reconstruction plate is comprised of a biocompatible material.

6. The invention according to claim 1, wherein the reconstruction plate is comprised of a metallic material.

7. The invention according to claim 1, wherein the reconstruction plate is comprised of materials selected from the group consisting of stainless steel, titanium, cobalt chrome, and combinations thereof.

8. The invention according to claim 1, wherein the attachment member is operable to be manipulated so as to impart a curvature to at least a portion of the attachment member.

9. The invention according to claim 1, wherein the attachment member and the support member are integrally formed.

10. The invention according to claim 1, wherein the aperture is operable to receive a fastening member.

11. The invention according to claim 1, wherein the aperture is operable to receive a bone screw.

12. The invention according to claim 1, wherein the attachment member includes a first end and a second end, the first end being operable to be fastened to a first bony member and the second end being operable to be fastened to a second bony member.

13. The invention according to claim 1, wherein the support member is in proximity to a posterior aspect of the anatomical structure.

14. The invention according to claim 1, wherein the support member is in proximity to a posterior aspect of an acetabulum.

15. The invention according to claim 1, wherein the support member is in proximity to a posterior aspect of an acetabular dome.

16. The invention according to claim 1, wherein the attachment member is operable to be fastened to an anterior aspect of the anatomical structure.

17. The invention according to claim 1, further comprising at least one other attachment member extending from the attachment member, the at least one other attachment member including at least one area defining an aperture formed therein.

18. The invention according to claim 17, wherein the at least one other attachment member extends substantially perpendicularly from the attachment member.

19. The invention according to claim 17, wherein the at least one other attachment member is substantially coplanar to the attachment member.

20. The invention according to claim 17, wherein the at least one other attachment member includes a plurality of areas defining apertures formed therein.

21. The invention according to claim 17, wherein the attachment member and the at least one other attachment member are integrally formed.

22. The invention according to claim 17, wherein the aperture is operable to receive a fastening member.

23. The invention according to claim 17, wherein the aperture is operable to receive a bone screw.

24. The invention according to claim 17, wherein the at least one other attachment member is operable to be fastened to an anterior aspect of the anatomical structure.

25. A reconstruction plate for reconstructing a fractured acetabulum, comprising:

an attachment member including at least one area defining an aperture formed therein; and

a support member extending angularly from the attachment member;

wherein the support member is operable to provide support to a posterior aspect of the reconstructed acetabulum during loading of the reconstructed acetabulum.

26. The invention according to claim 25, wherein the attachment member includes a plurality of areas defining apertures formed therein.

27. The invention according to claim 25, wherein the reconstruction plate is comprised of a biocompatible material.

28. The invention according to claim 25, wherein the reconstruction plate is comprised of a metallic material.

29. The invention according to claim 25, wherein the reconstruction plate is comprised of materials selected from the group consisting of stainless steel, titanium, cobalt chrome, and combinations thereof.

30. The invention according to claim 25, wherein the attachment member is operable to be manipulated so as to impart a curvature to at least a portion of the attachment member.

31. The invention according to claim 25, wherein the attachment member and the support member are integrally formed.

32. The invention according to claim 25, wherein the aperture is operable to receive a fastening member.

33. The invention according to claim 25, wherein the aperture is operable to receive a bone screw.

34. The invention according to claim 25, wherein the attachment member includes a first end and a second end, the first end being operable to be fastened to a first bony member and the second end being operable to be fastened to a second bony member.

35. The invention according to claim 25, wherein the support member is in proximity to a posterior aspect of an acetabular dome.

36. The invention according to claim 25, wherein the attachment member is operable to be fastened to an anterior aspect of the acetabulum.

37. The invention according to claim 25, further comprising at least one other attachment member extending from the attachment member, the at least one other attachment member including at least one area defining an aperture formed therein.

38. The invention according to claim 37, wherein the at least one other attachment member extends substantially perpendicularly from the attachment member.

39. The invention according to claim 37, wherein the at least one other attachment member is substantially coplanar to the attachment member.

40. The invention according to claim 37, wherein the at least one other attachment member includes a plurality of areas defining apertures formed therein.

41. The invention according to claim 37, wherein the attachment member and the at least one other attachment member are integrally formed.

42. The invention according to claim 37, wherein the aperture is operable to receive a fastening member.

43. The invention according to claim 37, wherein the aperture is operable to receive a bone screw.

44. The invention according to claim 37, wherein the at least one other attachment member is operable to be fastened to an anterior aspect of the acetabulum.

45. A reconstruction plate for reconstructing a fractured acetabulum, comprising:

an attachment member including a plurality of areas defining apertures formed therein;

at least one other attachment member extending substantially perpendicularly from the attachment member, the at least one other attachment member including at least one area defining an aperture formed therein; and

a support member extending angularly from the attachment member;

wherein the support member is operable to provide support to a posterior aspect of the reconstructed acetabulum during loading of the reconstructed acetabulum.

46. The invention according to claim 45, wherein the reconstruction plate is comprised of a biocompatible material.

47. The invention according to claim 45, wherein the reconstruction plate is comprised of a metallic material.

48. The invention according to claim 45, wherein the reconstruction plate is comprised of materials selected from the group consisting of stainless steel, titanium, cobalt chrome, and combinations thereof.

49. The invention according to claim 45, wherein the attachment member is operable to be manipulated so as to impart a curvature to at least a portion of the attachment member.

50. The invention according to claim 45, wherein the attachment member, the at least one other attachment member, and the support member are integrally formed.

51. The invention according to claim 45, wherein any aperture is operable to receive a fastening member.

52. The invention according to claim 45, wherein any aperture is operable to receive a bone screw.

53. The invention according to claim 45, wherein the attachment member includes a first end and a second end, the first end being operable to be fastened to a first bony member and the second end being operable to be fastened to a second bony member.

54. The invention according to claim 45, wherein the support member is in proximity to a posterior aspect of an acetabular dome.

55. The invention according to claim 45, wherein the at least one other attachment member is substantially coplanar to the attachment member.

56. The invention according to claim 45, wherein the at least one other attachment member includes a plurality of areas defining apertures formed therein.

57. The invention according to claim 45, wherein the attachment member is operable to be fastened to an anterior aspect of the acetabulum.

58. The invention according to claim 45, wherein the at least one other attachment member is operable to be fastened to an anterior aspect of the acetabulum.

59. A method for reconstructing a fractured load-bearing anatomical structure, comprising:

providing a reconstruction plate, comprising:

an attachment member including at least one area defining an aperture formed therein; and

a support member extending angularly from the attachment member; and

fastening the reconstruction plate in proximity to the anterior aspect of the fractured anatomical structure so as to at least partially reconstruct the fractured anatomical structure;

wherein the support member is operable to provide support to the posterior aspect of the reconstructed anatomical structure during loading of the reconstructed anatomical structure.

60. The invention according to claim 59, wherein the reconstruction plate is comprised of a biocompatible material.

61. The invention according to claim 59, wherein the reconstruction plate is comprised of a metallic material.

62. The invention according to claim 59, wherein the reconstruction plate is comprised of materials selected from the group consisting of stainless steel, titanium, cobalt chrome, and combinations thereof.

63. The invention according to claim 59, further comprising manipulating the attachment member so as to impart a curvature to at least a portion of the attachment member.

64. The invention according to claim 59, wherein the support member is in proximity to a posterior aspect of an acetabulum.

65. The invention according to claim 59, wherein the support member is in proximity to a posterior aspect of an acetabular dome.

66. The invention according to claim 59, wherein the attachment member is fastened to an anterior aspect of the anatomical structure.

67. The invention according to claim 59, further comprising providing at least one other attachment member extending from the attachment member, the at least one other attachment member including at least one area defining an aperture formed therein.

68. The invention according to claim 67, wherein the at least one other attachment member extends substantially perpendicularly from the attachment member.

69. The invention according to claim 67, wherein the at least one other attachment member is substantially coplanar to the attachment member.

70. The invention according to claim 67, wherein the at least one other attachment member includes a plurality of areas defining apertures formed therein.

71. The invention according to claim 67, wherein the at least one other attachment member is fastened to an anterior aspect of the anatomical structure.

72. A method for reconstructing a fractured acetabulum, comprising:
providing a reconstruction plate, comprising:
an attachment member including at least one area defining an aperture formed therein; and
a support member extending angularly from the attachment member; and

fastening the reconstruction plate in proximity to the anterior aspect of the fractured acetabulum so as to at least partially reconstruct the fractured acetabulum;

wherein the support member is operable to provide support to the posterior aspect of the reconstructed acetabulum during loading of the reconstructed acetabulum.

73. The invention according to claim 72, wherein the reconstruction plate is comprised of a biocompatible material.

74. The invention according to claim 72, wherein the reconstruction plate is comprised of a metallic material.

75. The invention according to claim 72, wherein the reconstruction plate is comprised of materials selected from the group consisting of stainless steel, titanium, cobalt chrome, and combinations thereof.

76. The invention according to claim 72, further comprising manipulating the attachment member so as to impart a curvature to at least a portion of the attachment member.

77. The invention according to claim 72, wherein the support member is in proximity to a posterior aspect of an acetabulum.

78. The invention according to claim 72, wherein the support member is in proximity to a posterior aspect of an acetabular dome.

79. The invention according to claim 72, wherein the attachment member is operable to be fastened to an anterior aspect of the acetabulum.

80. The invention according to claim 72, further comprising providing at least one other attachment member extending from the attachment member, the at least one other attachment member including at least one area defining an aperture formed therein.

81. The invention according to claim 80, wherein the at least one other attachment member extends substantially perpendicularly from the attachment member.

82. The invention according to claim 80, wherein the at least one other attachment member is substantially coplanar to the attachment member.

83. The invention according to claim 80, wherein the at least one other attachment member includes a plurality of areas defining apertures formed therein.

84. The invention according to claim 80, wherein the at least one other attachment member is operable to be fastened to an anterior aspect of the acetabulum.